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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,432	05/31/2002	Astrid Kleen	H 4494 PCT/US	1770

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EXAMINER	
ELHILO, EISA B	

ART UNIT	PAPER NUMBER
1751	

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/088,432	KLEEN ET AL.	
	Examiner	Art Unit	
	Eisa B Elhilo	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 May 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/15/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claims 13-31 are pending in this application.

DETAILED ACTION

1 This action is responsive to the preliminary amendment filed on May 31, 2002.

Double Patenting

2 The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3 Claims 13-31are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 18-26, 31 and 33-36 of copending Application No. 10/088247. Although the conflicting claims are not identical, they are not patentably distinct from each other because Kleen et al., Application No. 10/088247, claims a similar process for treating hair comprising applying to the hair a composition that comprises at least one enzyme having transglutaminase activity and at least one active substance having substrate activity for the enzyme having transglutaminase activity (see claims 18, 25 and 33 of Application No. 10/088247), enzyme having transglutaminase activity comprises a calcium-independent transglutaminase (see claim 19 of Application No. 10/088247), active substrate having substrate activity comprises one protein or protein hydrolyzate of soya protein (see claims 20-21of Application 10/088247), active substrate having substrate activity comprises

a synthetically functionalized substance (see claims 22-24 of Application No. 10/088247), the enzyme and the active substance are applied simultaneously or successively to the keratin fibers (see claim 31 of Application No. 10/088247), the composition left on keratin fibers for 3 minutes to 120 minutes (see claim 26 of Application 10/088247) and a multi-part kit for coloring (treating) keratin fibers (see claims 34-36), per the requirements of instant claims 13-31 of the instant invention.

Although Kleen et al., Application No. 10/088247, claims a similar method, they are not identical, because Kleen, Application No. 10/088247, requires a colorant component to be present in the composition that applied by the method, wherein the instant claims do not require a colorant component to be present in the composition for treating keratin fibers.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize such a process for treating keratin fibers without incorporating the colorant component in the composition that used by such a process. Such modification would be obvious because one having ordinary skill in the art would expect such a process to have similar properties to those claimed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

4 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13, 15-20 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernard et al. (US 6,274,364 B1).

Bernard (US' 364 B1) teaches a composition formulated as restructuring or setting lotions for hair (see col. 8, lines 15-20). The composition comprises a transglutaminase enzyme (see col. 6, lines 52-60) and at least one substance having substrate activity for the enzyme such as protein hydrolyzates, amino acid and plant extract (see col. 9, lines 17-22), active substance having substrate activity on the carbonyl group of a glutamine residue and of the amino group of a lysine residue (see col. 6, lines 55-57) and casein (see col. 13, line 30).

Although Bernard et al, (US' 364) teaches a hair treating composition comprising transglutaminase enzymes and substance having substrate activity such as protein hydrolyze and casein, the reference does not require such a treating composition with sufficient specificity to constitute anticipation.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply such a composition to the keratin fibers by using such a method, because such a composition that comprises transglutaminase enzymes and substance having substrate activity of protein hydrolyze falls within the scope of those taught by Bernard et al. Therefore, one of ordinary skill in the art would have had a reasonable expectation of success, because such a composition is expressly suggested by Bernard et al disclosure and therefore is an obvious formulation.

Claims 14, 21-23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernard et al. (US 6,274,364 B1) in view of McDevitt et al. (US 6,051,033).

The disclosure of Bernard (US' 364 B1) as summarized above, teaches a hair treating composition comprising calcium –dependent transglutaminase enzymes and substance having substrate activity of protein hydrolyze. Bernard et al., does not teach or disclose calcium-independent transglutaminase enzymes as claimed. Bernard et al, also does not teach that the composition can be applied to the hair simultaneously or successively for a limited time as claimed.

McDevitt (US' 033) in analogous art of hair treating formulations, teaches a method for treating wool fibers or animal hair comprising applying to the hair an aqueous solution that comprises a proteolytic enzyme and a transglutaminase which includes both calcium-dependent and calcium-independent transglutaminase (see col. 2, lines 24-28 and col. 7, lines 26-30), and, thus, McDevitt et al, clearly teaches the equivalency between calcium –dependent transglutaminase and calcium –independent transglutaminase which are both used in the same utility. It is also taught by McDevitt et al., that the enzymatic treatments can take place either as stand-alone steps or in combination with other treatments wherein the animal hair material is subjected to treatment with a transglutaminase either subsequent to or preferably simultaneously with a proteolytic enzyme treatment and wherein the enzymatic treatment steps are preferably carried out for a duration of at least I minute and less than 150 minutes (see col. 5, lines 13-28). It is further taught by McDevitt et al., that the method provides advantages with regard to improved shrink-resistance, and/or improvements of softness and handle are highly desired by the end-user, while minimizing fiber damage relative to existing degradative treatments of wool and other animal hair materials (see col. 2, lines 15-22).

Therefore, in view of teaching of the secondary reference of McDevitt et al., one having ordinary skill in the art would be motivated to modify the composition of Bernard by replacing the calcium –dependent transglutaminase with the calcium –independent transglutaminase as taught by McDevitt and to utilize such a method to apply to the hair the enzymatic composition simultaneously or successively for limited time. Such modification would be obvious because one would expect that the use of calcium –independent transglutaminase simultaneously or successively for limited time as taught by McDevitt would similarly useful and applicable to the analogous treating composition taught by the primary reference of Bernard et al.

Conclusion

6 The references listed on from 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eisa Elhilo
March 1, 2004

Brian P. Mruk
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